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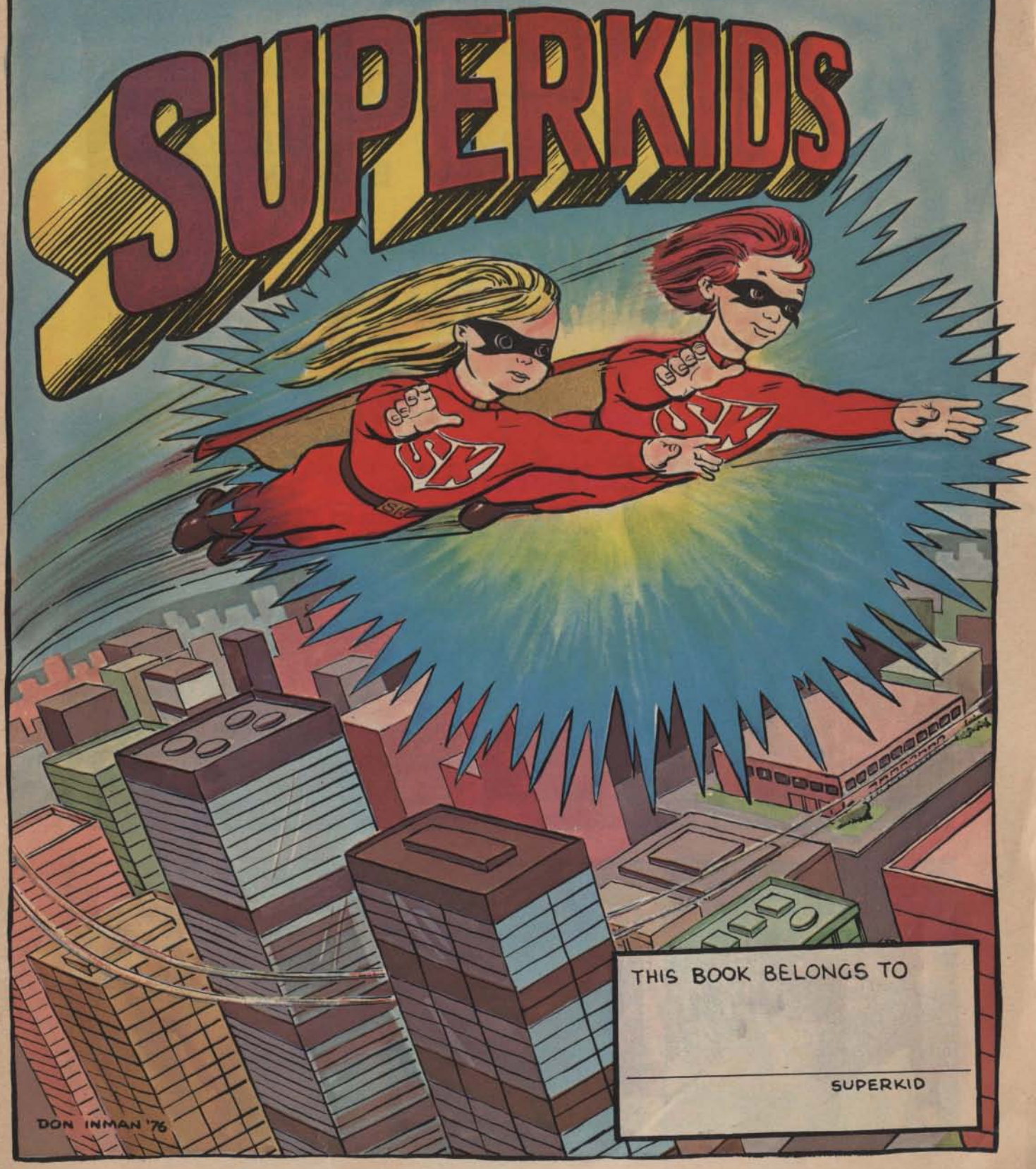
BISON

CA M92-4/1979

WHEREVER AND WHENEVER THOUGHTLESS OR SELFISH CANADIANS WASTE OUR PRECIOUS ENERGY-THEY MAY FIND THEMSELVES FACE TO FACE WITH....

SUPERKIDS



THIS BOOK BELONGS TO

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SUPERKID

"SUPERKIDS"... A PUBLICATION FOR ELEMENTARY SCHOOL CHILDREN IN CANADA BY THE OFFICE OF ENERGY CONSERVATION, DEPARTMENT OF ENERGY MINES AND RESOURCES.... MARCH 1976, OTTAWA, CANADA.

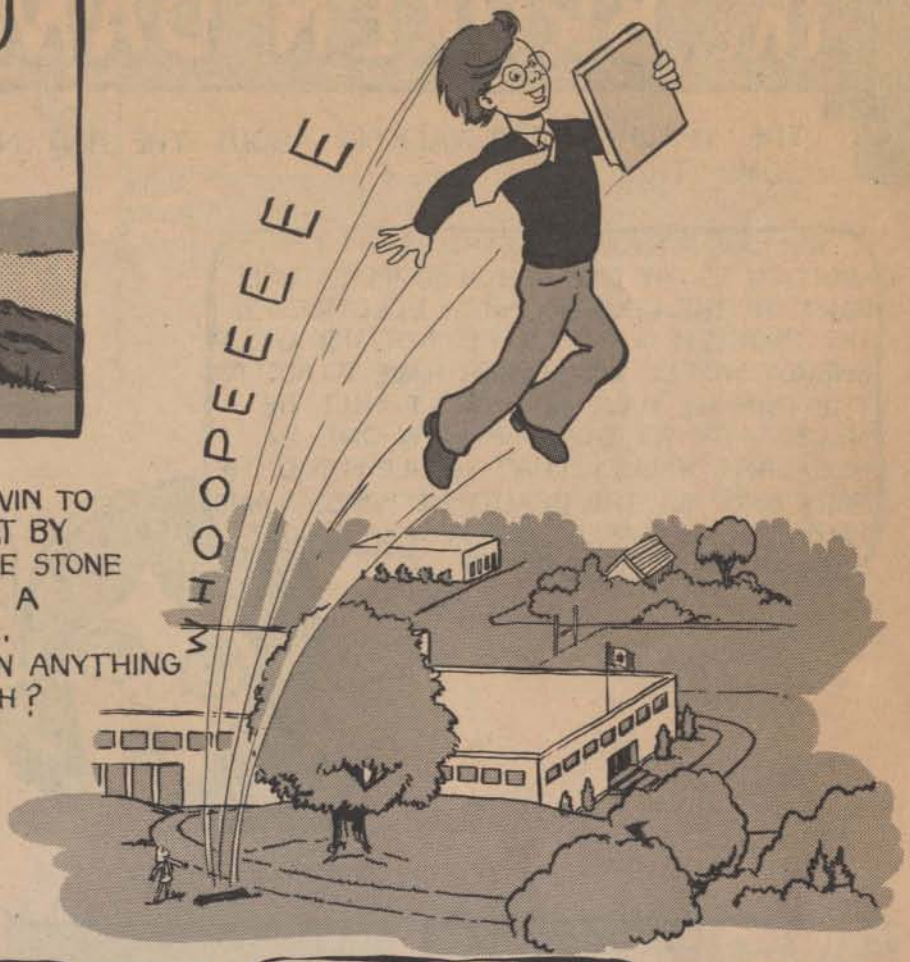
THIS IS THE STORY OF TWO CHILDREN WHO FOUND A STONE CALLED "ENERGOS" AND HOW IT CHANGED THEIR LIVES... AND HOW IT MAY CHANGE EVERYBODY'S...

KEVIN

JUDY

HERE'S HOW IT ALL HAPPENED...

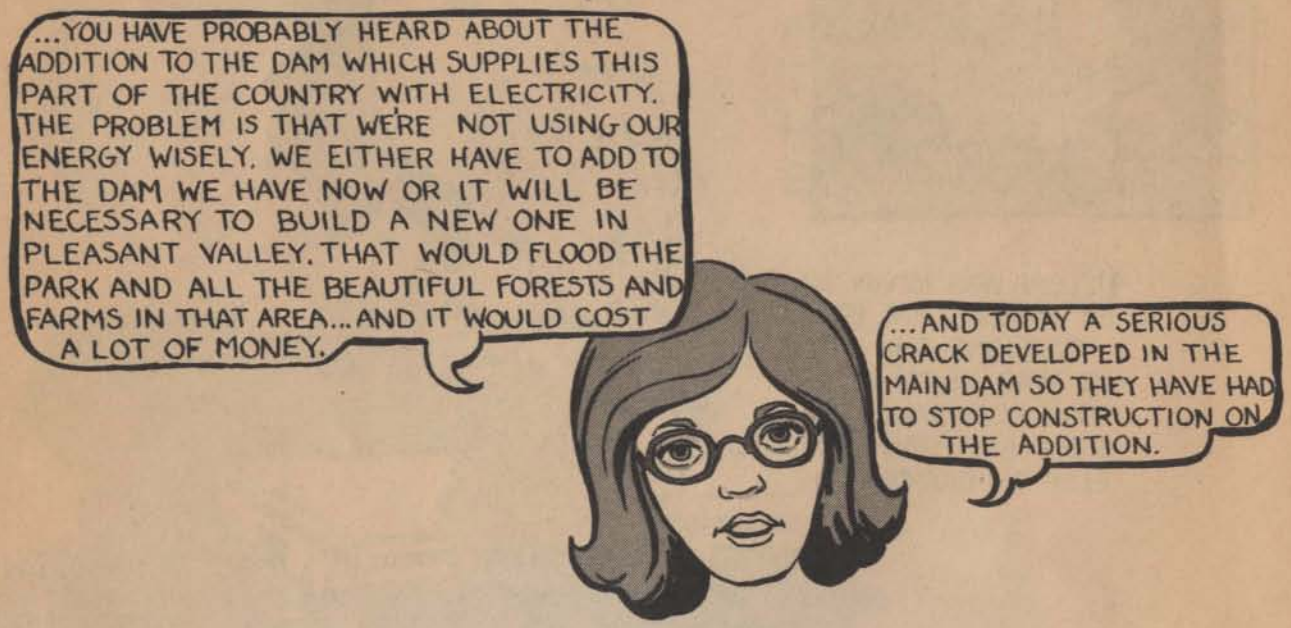
HOW WAS KEVIN TO KNOW THAT BY TOUCHING THE STONE HE WAS GIVEN A NEW POWER... GREATER THAN ANYTHING ELSE ON EARTH?



AND SO KEVIN AND JUDY KEPT THE SECRET AND MASTERED THEIR NEW SUPER ENERGY. AS TIME WENT BY THEY FOUND THAT THEY COULD USE IT TO HELP OTHER PEOPLE. THEIR FAME SPREAD EVERYWHERE. NEWSPAPERS CALLED THEM "**SUPERKIDS**"! BUT NOT EVEN THEIR PARENTS KNEW WHO THEY WERE!

the "BROKEN DAM" Caper!

THE TEACHER WAS TALKING ABOUT THE BAD NEWS THAT HAD COME THAT DAY....

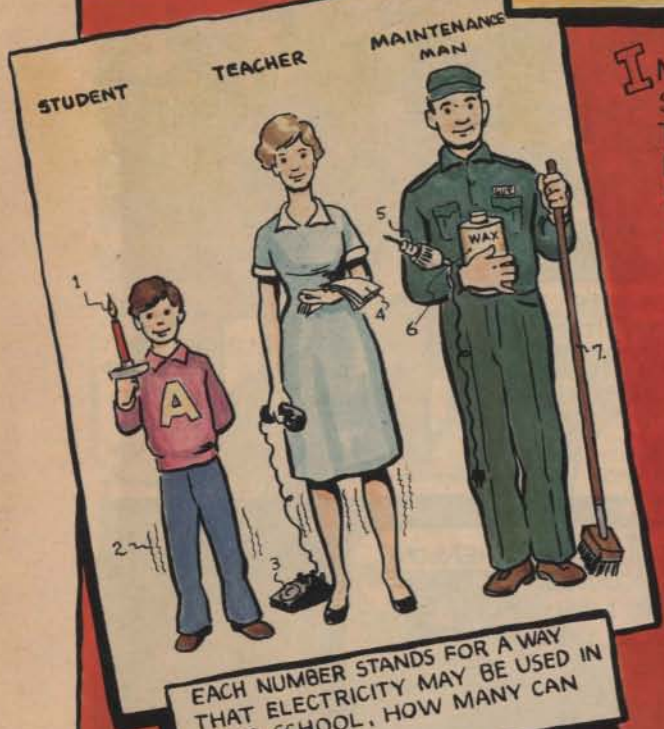


MEANWHILE-BACK AT THE DAM.
I DON'T THINK SHE'LL HOLD MUCH LONGER SIR!
AS THE WATER STARTED TO BURST THROUGH THE LARGE CRACK SUPERKIDS ARRIVED IN STREAKS OF LIGHT...AND THEY SAW IMMEDIATELY WHAT HAD TO BE DONE!
...AND THE WORKMEN SAW THEM!
WHAT'S THAT IN THE SKY?-IS IT A JET?
IS IT A U.F.O.?
IT'S SUPERKIDS! THEY'VE COME TO SAVE THE DAM!

FASTER THAN THE EYE COULD FOLLOW, GREAT BOULDERS WERE CARRIED AND PILED AGAINST THE DAM UNTIL THE CRACK CLOSED AND THE WATER STOPPED COMING THROUGH!
SHE'LL HOLD NOW UNTIL WE CAN POUR THE CEMENT!
I WONDER WHERE THEY COME FROM!
THE CRACK IS CLOSED! THE DAM IS SAVED!
HURRAH!
A JOB WELL DONE, SUPERKIDS TURN HOMEWARD...
WE'D BETTER HURRY- RECESS WILL SOON BE OVER!
... AND NOW IT WON'T BE NECESSARY TO BUILD THE NEW DAM. BUT YOU MUST BE CAREFUL NOT TO WASTE ELECTRICITY... WE SAVED 2 MILLION KILOWATTS OF ELECTRICITY TODAY BY SAVING THE DAM - ALL KIDS TOGETHER CAN SAVE AS MUCH BY SWITCHING OFF UNUSED LIGHTS AND BEING CAREFUL IN OTHER WAYS!
-YOUR RECESS IS OVER... SO LONG FOR NOW...!
GOOD GOING SUPERKIDS!
HURRAH!
YOU DUMMIES! WHILE YOU WERE SOMEWHERE READING YOUR BOOKS SUPERKIDS WERE HERE-AND YOU MISSED THEM!
...AND LOOK AT THE DIRT ON YOUR HANDS!

THINGS TO DO...

AT SCHOOL



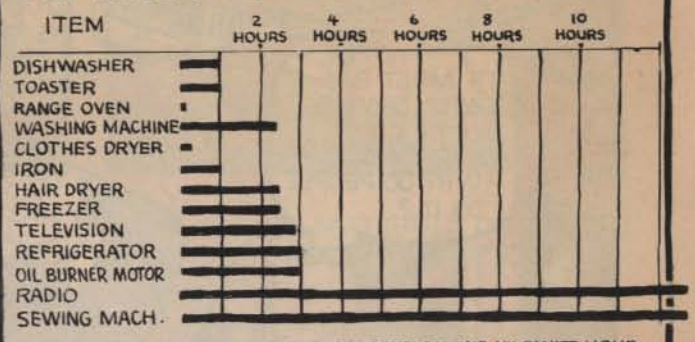
EACH NUMBER STANDS FOR A WAY THAT ELECTRICITY MAY BE USED IN YOUR SCHOOL. HOW MANY CAN YOU NAME?

INTERVIEW THE PRINCIPAL AND THE SCHOOL MAINTENANCE MAN TO FIND OUT THEIR IDEAS ON HOW THE SCHOOL CAN SAVE ENERGY. THEN MAKE A SURVEY OF THE SCHOOL AND MAKE A LIST OF WHAT EVERYBODY CAN DO TO SAVE ELECTRICITY.

A KILOWATT HOUR IS AN AMOUNT OF ELECTRICAL ENERGY EQUAL TO ONE KILOWATT SUPPLIED FOR ONE HOUR.

HOW MUCH WORK DO YOU GET FROM A KILOWATT HOUR OF ELECTRICITY?

ONE KILOWATT HOUR WILL RUN THE FOLLOWING ELECTRICAL APPLIANCES FOR THE LENGTH OF TIME INDICATED.



AN ELECTRIC CLOCK RUNS FOR 3 WEEKS ON ONE KILOWATT HOUR

LIST THE PROBLEMS THAT WOULD RESULT IF THERE WAS A 10-HOUR ELECTRICAL BLACKOUT STARTING AT NOON ON A TUESDAY...

..FOR YOU
..FOR THE SCHOOL
..FOR YOUR FAMILY
..FOR YOUR COMMUNITY
..FOR A LARGE CITY

AT HOME

LOCATE THE HYDRO METER IN YOUR HOME. DRAW A PICTURE OF IT SHOWING THE NUMBERS AND HANDS.

DRAW IT AGAIN IN ONE WEEK TO SEE HOW THE HANDS HAVE CHANGED POSITION.

HOW MANY KILOWATT HOURS DID YOUR FAMILY USE?

GET EVERYONE TO SAVE AS MUCH ELECTRICITY AS POSSIBLE FOR A WEEK AND DRAW IT THE THIRD TIME.

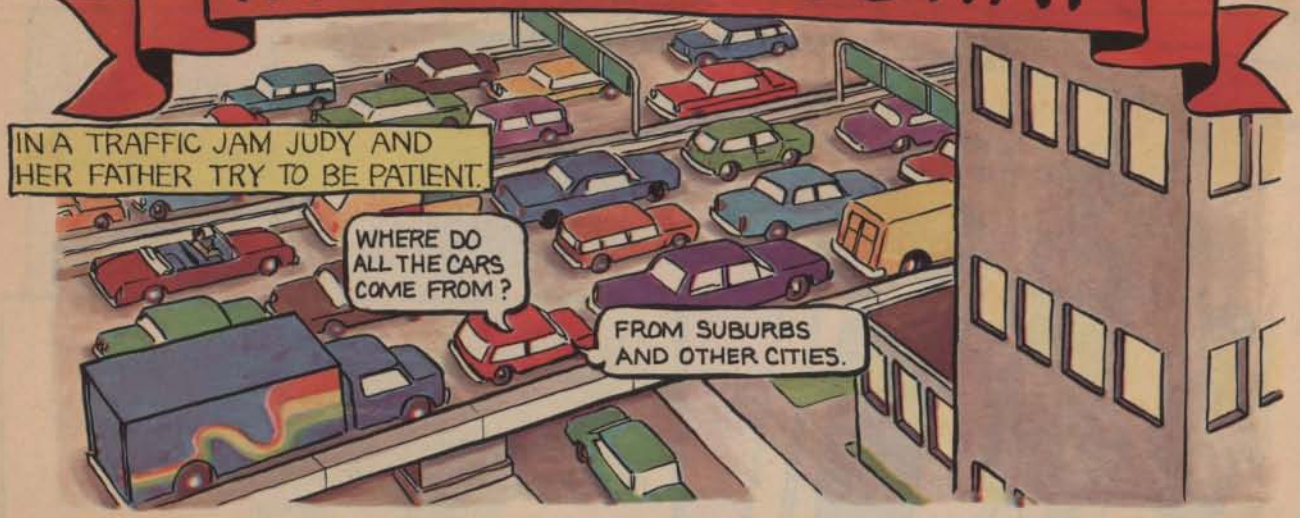
COMPARE YOUR FAMILY'S ELECTRICAL ENERGY USE WITH A CLASSMATE WHO HAS THE SAME SIZE FAMILY AS YOURS. SEE WHICH ONE OF YOU CAN GET YOUR FAMILY TO SAVE MOST.

ASK YOUR PARENTS FOR LAST MONTH'S HYDRO ELECTRIC BILL. STUDY IT CAREFULLY. HOW MANY FACTS CAN YOU FIND ON IT?

INTERVIEW PEOPLE TO FIND OUT HOW THEY THINK ELECTRICAL ENERGY CAN BE SAVED. YOU SHOULD INTERVIEW YOUR PARENTS, A NEIGHBOR AND THE MANAGER OF A PUBLIC BUILDING. MAKE YOUR OWN OBSERVATIONS ON EACH PLACE AND WRITE A LIST OF THINGS THAT EACH CAN DO TO SAVE ELECTRICAL ENERGY.

EACH NUMBER STANDS FOR A WAY THAT ELECTRICITY MAY BE USED IN YOUR HOME - HOW MANY CAN YOU NAME?

THE CASE OF THE INSTANT SUBWAY



AND THERE ARE THOSE NECESSARY VEHICLES WHICH ADD TO THE CONGESTION...

...LIKE DELIVERY VANS WHICH MUST STOP OFTEN.

AMBULANCES MUST HAVE A CLEAR ROUTE TO SAVE LIVES.

POLICE CARS MUST BE ON THE STREETS 24 HOURS A DAY.

OF COURSE GARBAGE TRUCKS AND STREET CLEANING EQUIPMENT ADD TO THE TRAFFIC.

BUT THE BIGGEST WASTE OF ALL IS WHEN A FIVE-PASSENGER CAR CARRIES ONLY ONE PERSON- THE SAME AMOUNT OF GASOLINE COULD CARRY FIVE.

THE TROUBLE IS THAT THE WORLD WILL SOMEDAY NOT HAVE ANYMORE OIL FOR CARS AND HEATING AND IF WE DON'T STOP WASTING IT NOW, THERE WON'T BE ANY FOR YOU KIDS.
HOW SOON WON'T THERE BE ANYMORE?

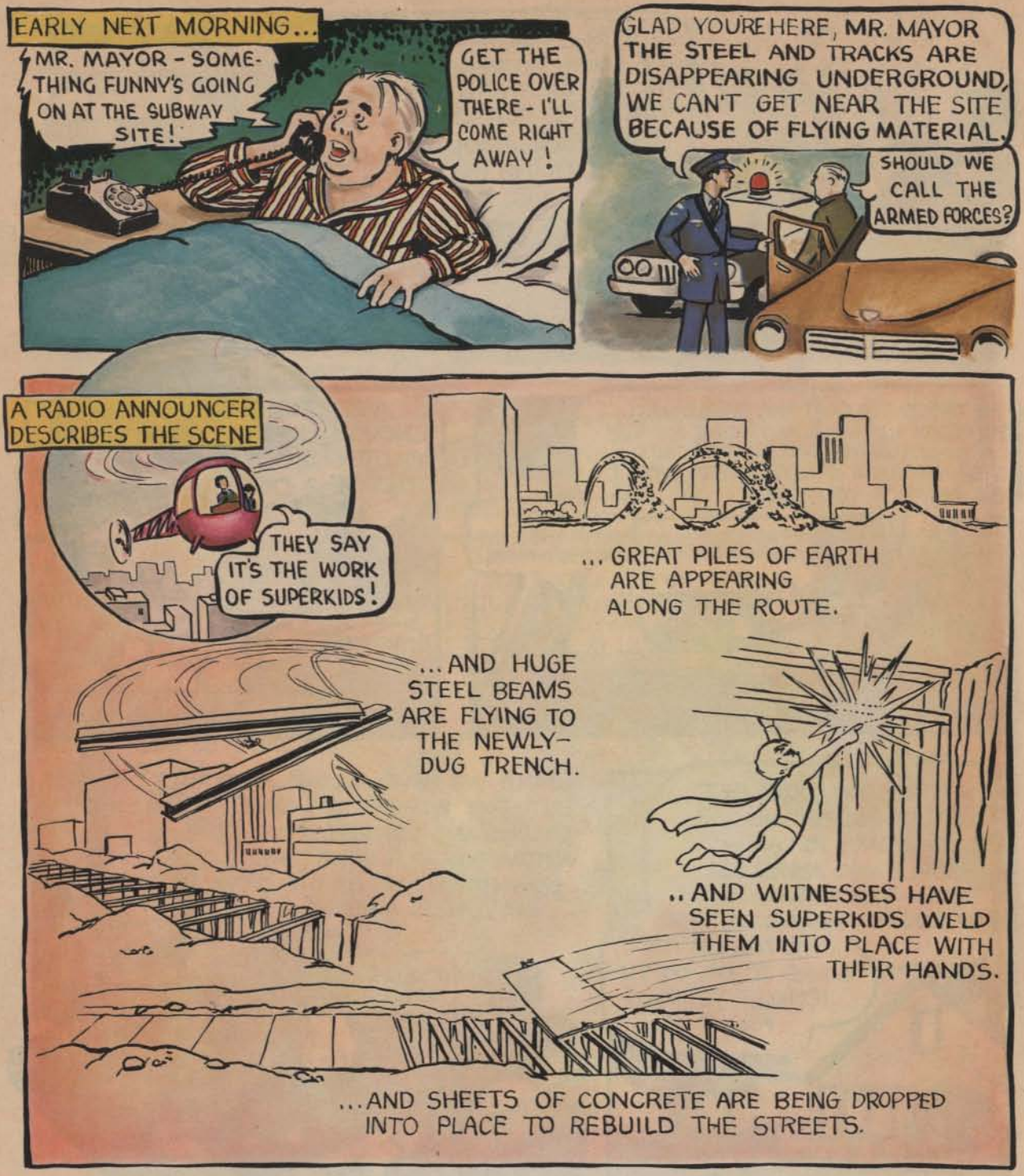
...WELL THERE WON'T BE ENOUGH LEFT BY THE TIME YOU'RE OLD ENOUGH TO DRIVE A CAR.
THAT'S ONLY ABOUT TEN YEARS!

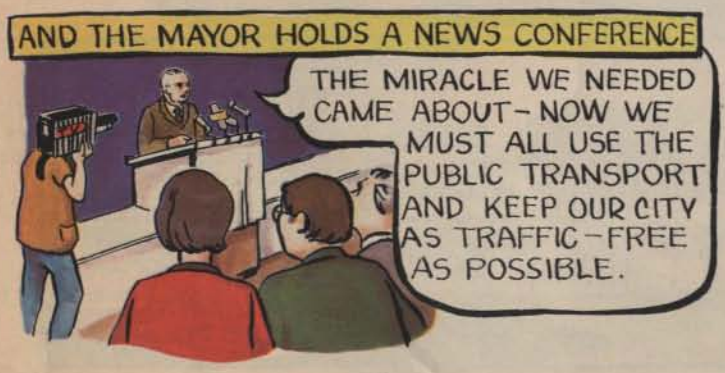
IF THE CITY COULD GET BETTER BUSES AND STREETCARS TO CARRY PEOPLE AND ABOVE ALL FINISH THE SUBWAY, A LOT OF ENERGY WOULD BE SAVED
...THE MAYOR IS GOING TO BE ON TV TONIGHT TO TALK ABOUT IT.

...AND WE HAVE ALL THE MATERIALS ON HAND, BUT HAVE RUN OUT OF MONEY TO FINISH THE DIGGING AND CONSTRUCTION... THE AUTOMOBILE IS RUINING THE DOWNTOWN PART OF THE CITY. WE'LL NEED A MIRACLE!
IT'S A BIG PROBLEM.

KEVIN...THERE'S A JOB FOR SUPER-KIDS-THE MAYOR NEEDS A MIRACLE.

SUBWAY PLAN
THERE'S ALL THE MATERIAL
CLOSED
AND THERE'S THE ROUTE IT'S SUPPOSED TO TAKE.


EARLY NEXT MORNING...
MR. MAYOR - SOMETHING FUNNY'S GOING ON AT THE SUBWAY SITE!
GET THE POLICE OVER THERE - I'LL COME RIGHT AWAY!
GLAD YOU'RE HERE, MR. MAYOR THE STEEL AND TRACKS ARE DISAPPEARING UNDERGROUND, WE CAN'T GET NEAR THE SITE BECAUSE OF FLYING MATERIAL.
SHOULD WE CALL THE ARMED FORCES?
A RADIO ANNOUNCER DESCRIBES THE SCENE
THEY SAY IT'S THE WORK OF SUPERKIDS!
... GREAT PILES OF EARTH ARE APPEARING ALONG THE ROUTE.
... AND HUGE STEEL BEAMS ARE FLYING TO THE NEWLY-DUG TRENCH.
.. AND WITNESSES HAVE SEEN SUPERKIDS WELD THEM INTO PLACE WITH THEIR HANDS.
...AND SHEETS OF CONCRETE ARE BEING DROPPED INTO PLACE TO REBUILD THE STREETS.


AND THE MAYOR HOLDS A NEWS CONFERENCE
THE MIRACLE WE NEEDED CAME ABOUT - NOW WE MUST ALL USE THE PUBLIC TRANSPORT AND KEEP OUR CITY AS TRAFFIC-FREE AS POSSIBLE.

YOU TWO ARE ALWAYS TIRED - WHY DON'T YOU GET SOME EXERCISE SOMETIME?

THINGS TO DO...

RESEARCH

IN SCHOOL

1. FIND OUT HOW NATURAL GAS AND OIL WERE FORMED IN THE EARTH.

2. DRAW A PICTURE OF AN OIL WELL AND A "CUT-AWAY" DIAGRAM OF THE EARTH UNDER IT SHOWING HOW OIL IS FOUND IN THE EARTH. YOUR LIBRARY WILL MOST LIKELY HAVE A BOOK TO HELP YOU.

3. WHAT OTHER SOURCE OF ENERGY COMES FROM THE SAME KIND OF WELL THAT OIL DOES? SHOW IT IN YOUR DRAWING OF THE OIL WELL.

4. MAKE A LIST OF ALL OF THE FORMS OF TRANSPORTATION THAT GET THEIR ENERGY FROM OIL OR GASOLINE.

5. WHAT OTHER FORMS OF ENERGY COULD BE USED TO POWER CARS, BUSES AND TRAINS?

6. AFTER TRANSPORTATION WHAT IS THE NEXT MOST IMPORTANT USE OF OIL?

7. LIST ALL OF THE OTHER THINGS YOU CAN THINK OF THAT OIL IS USE FOR -SUCH AS MAKING PLASTICS.

8. MAKE A LIST OF EVERYTHING YOU CAN THINK OF THAT IS MADE OF PLASTICS.

9. IN THE THREE LISTS YOU HAVE MADE ABOVE IN NUMBERS 4, 7, AND 8 THERE ARE MANY LUXURIES. PUT AN ✗ BESIDE THOSE THINGS THAT WE CAN GET ALONG WITHOUT AND A ✓ BESIDE EACH ITEM THAT WE SHOULD USE LESS OFTEN.

AT HOME

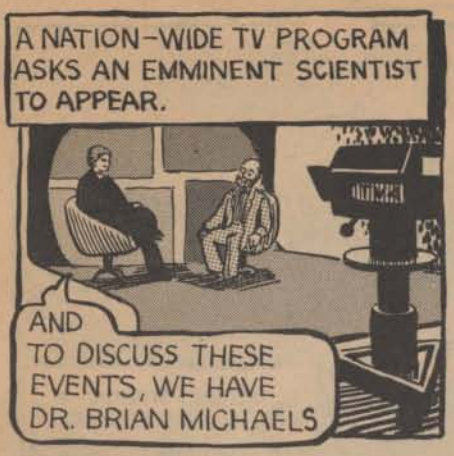
1. MAKE A QUIZ FOR YOUR FAMILY ABOUT THE INFORMATION YOU HAVE FOUND IN YOUR SCHOOL PROJECTS.

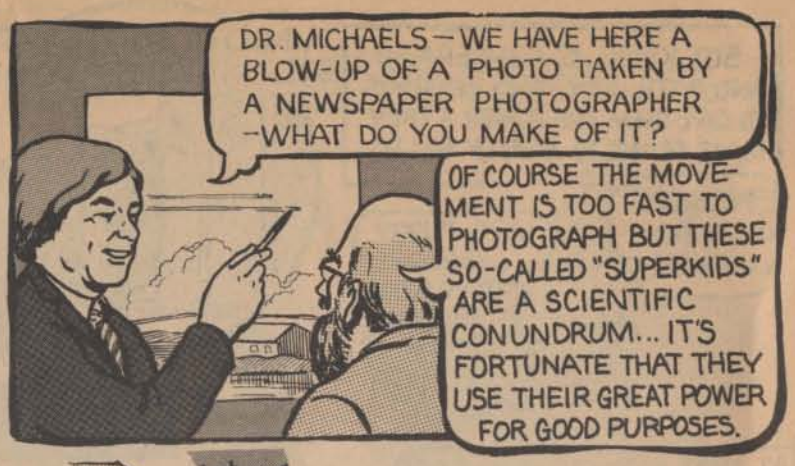
2. ON SATURDAY MORNING, BEFORE THE FAMILY CAR IS USED, WRITE DOWN THE MILEAGE THAT IS SHOWN ON THE ODOMETER; WAIT A WEEK AND WRITE IT DOWN AGAIN THE NEXT SATURDAY MORNING. BY SUBTRACTION YOU CAN CALCULATE HOW MANY MILES THE CAR WAS DRIVEN DURING THE WEEK. ASK HOW MANY MILES THE CAR GOES ON A GALLON OF GASOLINE AND BY DIVISION, CALCULATE THE NUMBER OF GALLONS USED. IF YOU MULTIPLY THE NUMBER OF GALLONS USED BY THE COST PER GALLON YOU WILL BE ABLE TO TELL YOUR FAMILY HOW MUCH IT COSTS IN A WEEK.

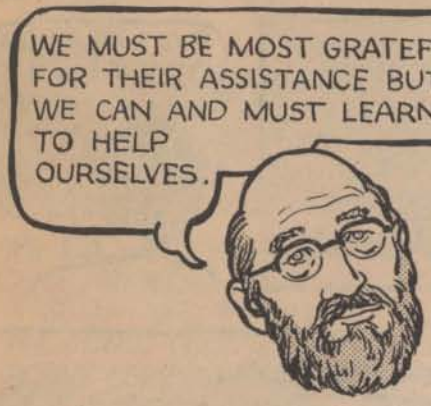
3. SEE WHOSE FAMILY CAN THINK OF THE MOST WAYS TO SAVE GASOLINE. FOR EXAMPLE-YOU CAN WALK INSTEAD OF BEING DRIVEN TO MANY PLACES... OR SHOPPING CAN BE DONE LESS OFTEN. TAKE YOUR LIST TO SCHOOL ON MONDAY TO SEE WHOSE FAMILY THOUGHT OF THE MOST WAYS TO SAVE.

the HAPPY HARVEST ADVENTURE

- BUT KEVIN IS CONCERNED AND, WITH JUDY - AND ENERGOS TO GIVE THEM THE POWER - THEY MAKE PLANS TO REALLY HELP!
ENERGOS IS IN MY LOCKER.
LET'S HURRY - BEFORE THEY CLOSE THE DOORS
-UNNOTICED THEY STEP INTO THEIR LOCKERS
...AND TWO STREAKS OF LIGHT LEAVE THE SCHOOL.
AT THAT MOMENT A WHEAT FARMER WAS GOING THROUGH HIS FUEL TINS.
THAT'S IT - NO MORE DIESEL OIL - I GUESS THE CROP WILL STAY WHERE IT IS.
WHAT'S THAT?
THEY LOOK LIKE JETS OR U.F.O.'S
MAYBE IT'S SUPERKIDS!
IT IS SUPERKIDS - THEY'RE COMING HERE!
THEY'RE ATTACKING THE CROPS! STOP THEM!
NO! NO! THEY'RE THRESHING IT!
LOOK AT THAT! THEY'RE PUTTING IT IN THE GRANARIES BY THE TON! IT'S ALL DONE.
TWO WEEKS OF WORK IN A COUPLE OF MINUTES!
AND THE NEWS IS SOON ON THE RADIO.
SUPERKIDS ARE SUPERFARMERS! -THE TWO MYSTERIOUS YOUNGSTERS SUDDENLY APPEARED TODAY AND IN A FEW MINUTES THEY HAD BROUGHT IN ALL THE CROPS OF THE FARMS IN THE SOUTHWEST PART OF THE PROVINCE...
ON AIR
...AND THEY'RE STILL GOING - BRINGING IN THE CROPS THAT MIGHT HAVE BEEN LOST BECAUSE OF THE FUEL SHORTAGE!!







WE SHOULD USE OUR OWN PROPERTY TO PRODUCE FOOD WHEREVER POSSIBLE ...WE GET A FRESHER PRODUCT. IT SAVES US MONEY AND SAVES THE COUNTRY FUEL THAT WOULD BE USED TO CULTIVATE THE FOOD AND TRANSPORT IT TO US.

SAVE ALL YOUR KITCHEN SCRAPS AND YARD WASTE TO MAKE A "COMPOST HEAP." YOU WILL BE SAVING THE ENERGY NEEDED FOR GARBAGE DISPOSAL AND FOR MANUFACTURING FERTILIZER.

DO LARGE SHOPPINGS AND BUY IN BULK – IT SAVES GASOLINE.

AND USING OIL TO MAKE PLASTICS FOR PACKAGING SEEMS TO ME TO BE AN UNNECESSARY WASTE OF AN IMPORTANT SOURCE OF ENERGY.

INSTEAD OF POLLUTING OUR LAKES AND RIVERS WITH SEWAGE WE HAVE THE TECHNOLOGY TO CONVERT IT INTO FERTILIZER ... AND THAT WILL CONSERVE OIL FROM WHICH MUCH FERTILIZER IS MADE.

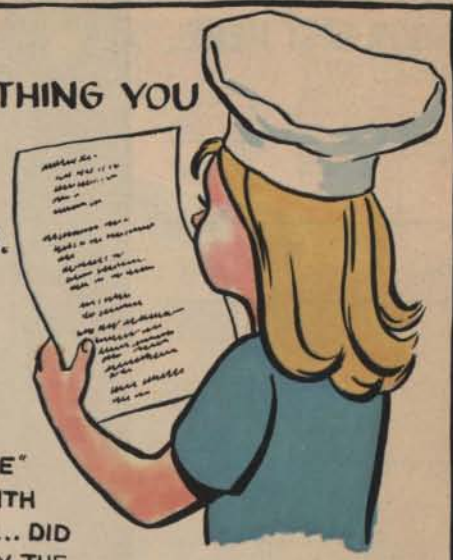
TRY CUTTING DOWN ON MEAT CONSUMPTION. IT TAKES MORE ENERGY TO GROW MEAT THAN GRAIN. (7 LBS. OF GRAIN PRODUCES 1 LB. OF BEEF.)

DON'T BUY PRE-PACKAGED OR PROCESSED FOODS.

THINGS TO DO...

IN SCHOOL

WRITE A MENU OF EVERYTHING YOU ATE YESTERDAY.
BE SURE TO INCLUDE POP, CANDIES AND SNACKS.



GET A COPY OF "CANADA'S FOOD GUIDE" AND COMPARE IT WITH YESTERDAY'S MENU... DID YOU GIVE YOUR BODY THE ENERGY IT NEEDS, AND THE FOOD TO KEEP IT STRONG AND HEALTHY

MAKE A LIST OF THE BEST FOODS TO EAT TO BE STRONG AND HEALTHY.

FACT: FOOD ENERGY IS CALLED "CALORIES"

AT HOME

EXPERIMENT TO PROVE THAT FOOD HAS ENERGY...

SPEAR A PEANUT WITH A NEEDLE. FILL A LARGE TABLESPOON WITH WATER, LIGHT THE PEANUT WITH A MATCH AND HOLD IT UNDER THE SPOON - YOU'LL BE SURPRISED AT THE HEAT (ENERGY) CONTAINED IN ONE PEANUT.

MAKE YOUR OWN MINI-GARDEN TO SEE HOW FOOD GROWS

YOU WILL NEED AN EGG CARTON, 12 HALF EGG SHELLS. SOME GOOD SOIL AND 12 SEEDS OF THE FOOD PLANT THAT YOU WOULD LIKE TO GROW. PUT THE EGG SHELLS IN THE EGG CARTON. NEXT PUT A SMALL AMOUNT OF SOIL IN EACH EGG SHELL AND PLACE ONE SEED IN EACH. COVER THE SEED WITH MORE SOIL AND GIVE IT ENOUGH WATER TO KEEP THE SOIL DAMP – BUT NOT SOGGY.

SOME GARBAGE CAN BE RECYCLED TO BE "COMPOST" WHICH IS A RICH SOIL TO PUT ON YOUR GARDEN

LIKE PEOPLE, PLANTS NEED SUNLIGHT, WATER AND WARMTH TO GROW HEALTHY.

AND NOW THAT YOU'VE HAD EXPERIENCE GROWING THINGS – WHY NOT SUGGEST THAT YOUR FAMILY MAKES A REAL VEGETABLE GARDEN IN THE SPRING... YOU'LL HAVE FRESHER FOOD AND YOU'LL SAVE THE GASOLINE OR OIL THAT WOULD BE USED TO BRING THE FOOD TO THE STORE.

HOW MANY WAYS COULD YOU SAVE ENERGY AT HENRY'S HOUSE? WRITE YOUR LIST HERE.

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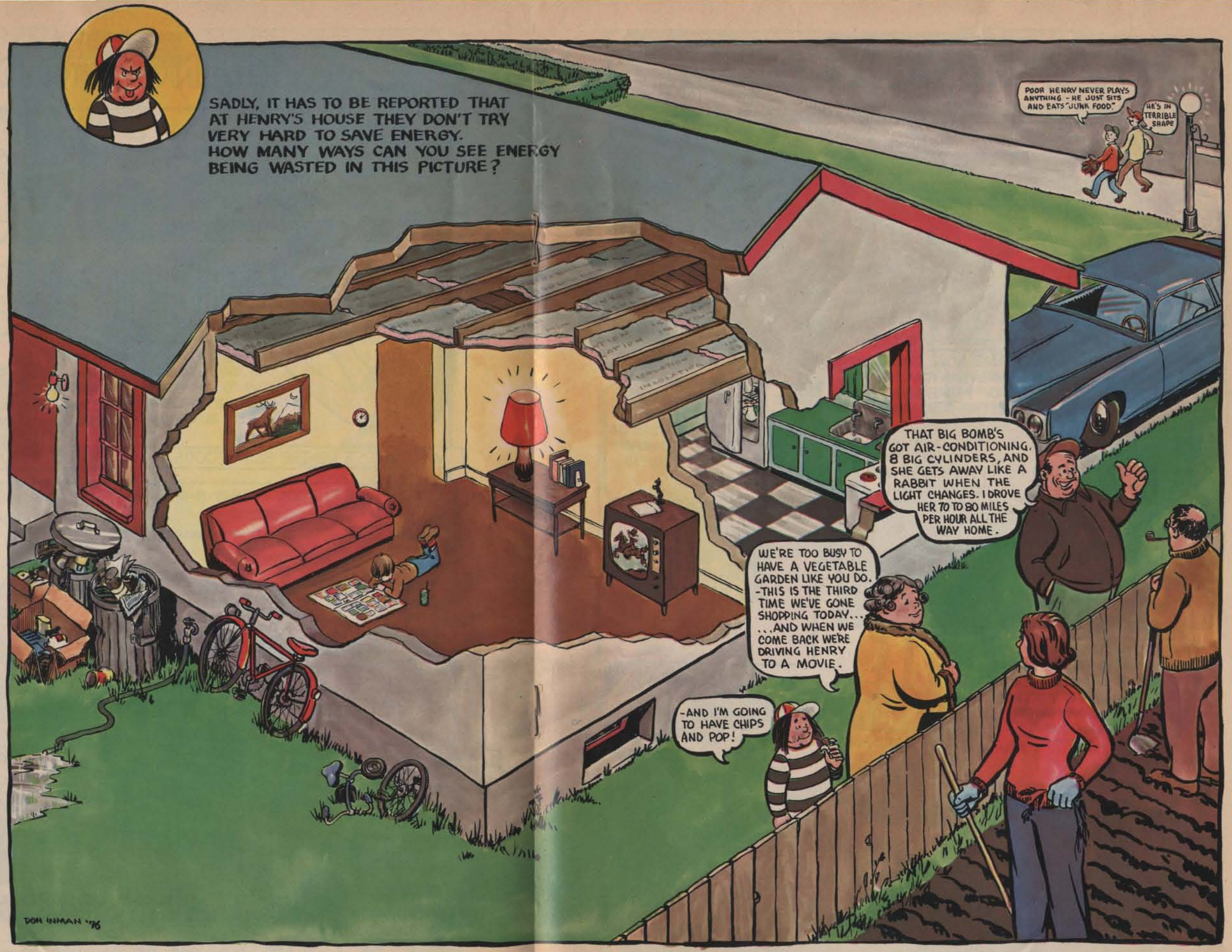
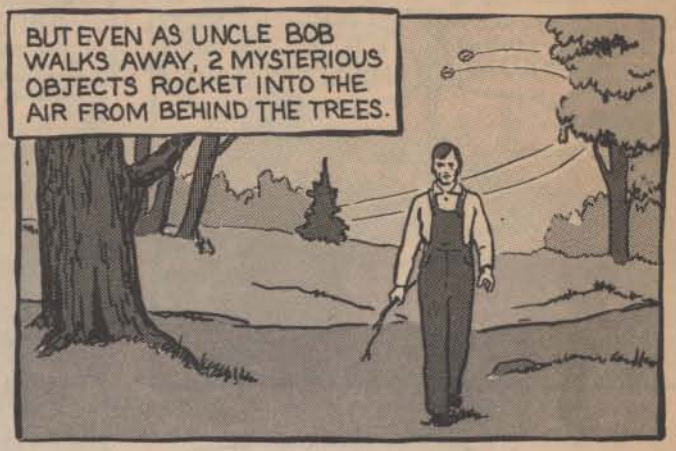


THE ANSWERS TO THE QUIZZES AND QUESTIONS IN THIS WORKBOOK HAVE BEEN SUPPLIED TO YOUR TEACHER IN THE TEACHER'S KIT.

the "LITTLE VALLEY" Adventure

SO ITS TOO BAD TO SPOIL BEAUTIFUL SPOTS LIKE THIS ESPECIALLY WHEN ITS NOT NECESSARY
WE'LL MEET YOU BACK AT THE FARM —I'LL TAKE KEVIN TO EXPLORE.

DID YOU BRING ENERGOS?
SURE DID


BUT EVEN AS UNCLE BOB WALKS AWAY, 2 MYSTERIOUS OBJECTS ROCKET INTO THE AIR FROM BEHIND THE TREES.

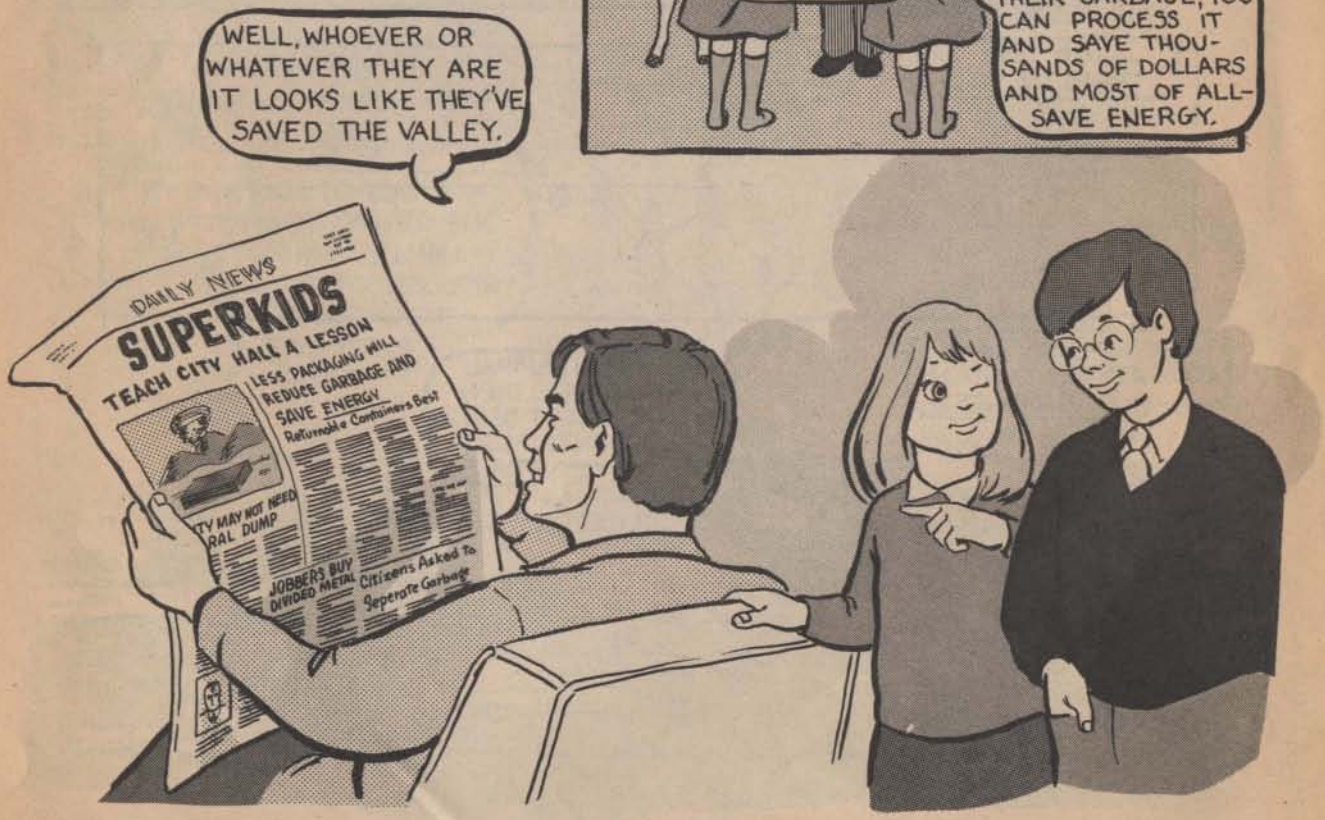
..AND TURN TOWARD THE CITY.
TWO STREAKS OF LIGHT JUST PASSED.

THERE'S THE CITY DUMP. LOOK AT THE MOUNTAINS OF GARBAGE!
LET'S MAKE IT SPIRAL IN THE AIR AND THEN DIVIDE IT USING CENTRIFUGAL FORCE.

LOOK AT THE GARBAGE!
IT'S A GIANT WHIRLWIND!
BUT WHAT ARE THOSE STREAKS OF LIGHT?
IT'S SUPERKIDS! ... THEY'RE DIVIDING THE GARBAGE!

LOOK CHIEF - IT'S ALL IN PILES OF ALUMINUM, STEEL, GLASS, PAPER.
IT'LL SELL FOR THOUSANDS OF DOLLARS!

... BEFORE LEAVING, SUPERKIDS MEET WITH THE MAYOR AND HIS COUNCIL
THANK YOU SUPERKIDS, YOU'VE TURNED A PILE OF TROUBLE INTO PILES OF VALUABLE MATERIAL.
YOU DIDN'T NEED US TO DO IT!
IF THE CITIZENS WILL AVOID BUYING PRODUCTS IN DISPOSABLE CONTAINERS AND DIVIDE THEIR GARBAGE, YOU CAN PROCESS IT AND SAVE THOUSANDS OF DOLLARS AND MOST OF ALL- SAVE ENERGY.


WELL, WHOEVER OR WHATEVER THEY ARE IT LOOKS LIKE THEY'VE SAVED THE VALLEY.
DAILY NEWS
SUPERKIDS
TEACH CITY HALL A LESSON
LESS PACKAGING WILL REDUCE GARBAGE AND SAVE ENERGY
Returnable Containers Best
TY MAY NOT NEED RAL DUMP
JOBBERS BUY DIVIDED METAL
Citizens Asked To Seperate Garbage

THINGS TO DO...

IN SCHOOL

1. FIND OUT IF THERE ARE RECYCLING STATIONS IN YOUR AREA. HOW DO THEY GET MATERIALS TO BE RECYCLED?
2. SURVEY YOUR SCHOOL TO SEE WHAT HAPPENS TO WASTE PAPER, CARDBOARD BOXES AND TINS AND BOTTLES FROM THE LUNCH ROOM FROM THE SURVEY YOU'VE DONE, DO YOU THINK YOUR SCHOOL IS DOING A GOOD JOB TOWARDS RECYCLING?
3. PERHAPS A LOT OF PAPER IS BEING WASTED AT YOUR SCHOOL. THINK OF AS MANY WAYS AS YOU CAN TO REDUCE THE AMOUNT OF PAPER USED.
4. IF YOU CARRY YOUR LUNCH TO SCHOOL IN A PAPER BAG, WRITE THE DATE ON IT AND USE THE SAME BAG AS MANY DAYS AS POSSIBLE. MAYBE YOU CAN SET A SCHOOL RECORD.

QUIZ: HOW CAN GARBAGE BE USED TO GENERATE ELECTRICITY?

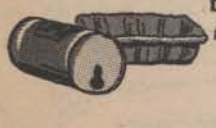
AT HOME

APPOINT YOURSELF "CHIEF OF RECYCLING - HOME PROJECT" AND ORGANIZE MATERIALS THAT WOULD NORMALLY JUST BE GARBAGE, TO BE RECYCLED.

IF THERE IS NO RECYCLING DEPOT IN YOUR AREA CONTACT AN ENVIRONMENTAL GROUP, PROVINCIAL DEPARTMENT OR OFFICE OF ENVIRONMENTAL CONSERVATION FOR INFORMATION ON HOW TO START ONE.

AVOID BUYING FOOD AND DRINK IN DISPOSABLE CONTAINERS.

STEEL (FOOD) CANS: RINSE, REMOVE LABELS OPEN BOTH ENDS FLATTEN AND PACK SEPARATELY.



BI-METAL (FLIP TOP) CANS AND ALUMINUM FOOD TRAYS: RINSE AND PACK SEPARATELY FROM STEEL CANS.

NEWSPAPERS: STACK FLAT AND TIE IN BUNDLES 12" HIGH.

MAGAZINES: TIE IN BUNDLES

FOOD LEFT-OVERS, BONES PEELS ETC.: MAKE A "COMPOST" HEAP" - IT CHANGES THE LEFT-OVERS INTO RICH SOIL TO PUT ON YOUR GARDEN.

GLASS (NON-RETURNABLE BOTTLES AND JARS): RINSE, TAKE AWAY LIDS — REMOVE METALLIC LABELS AND ALUMINUM RINGS. SEPARATE BY COLOR DO NOT BREAK.

BOX BOARD (CEREAL BOXES) - FLATTEN AND TIE IN BUNDLES.

CORRUGATED CARDBOARD: BREAK BOXES DOWN AND STACK FLAT.

HOW MANY THINGS DO YOU HAVE THAT CAN BE RECYCLED ... A BROKEN TOY REPAIRED FOR A YOUNGER CHILD?

EARLY MORNING SURPRISE

I'VE HAD CONSTRUCTION AND HEATING PEOPLE GO OVER IT - THEY TELL ME IT NEEDS LOTS OF INSULATION IN THE ATTIC, WALLS AND BASEMENT...WEATHER-STRIPPING AND CALKING IN THE CRACKS AROUND THE STORM WINDOWS....AND THE FURNACE NEEDS REPAIR.

I HOPE WE CAN STAY.

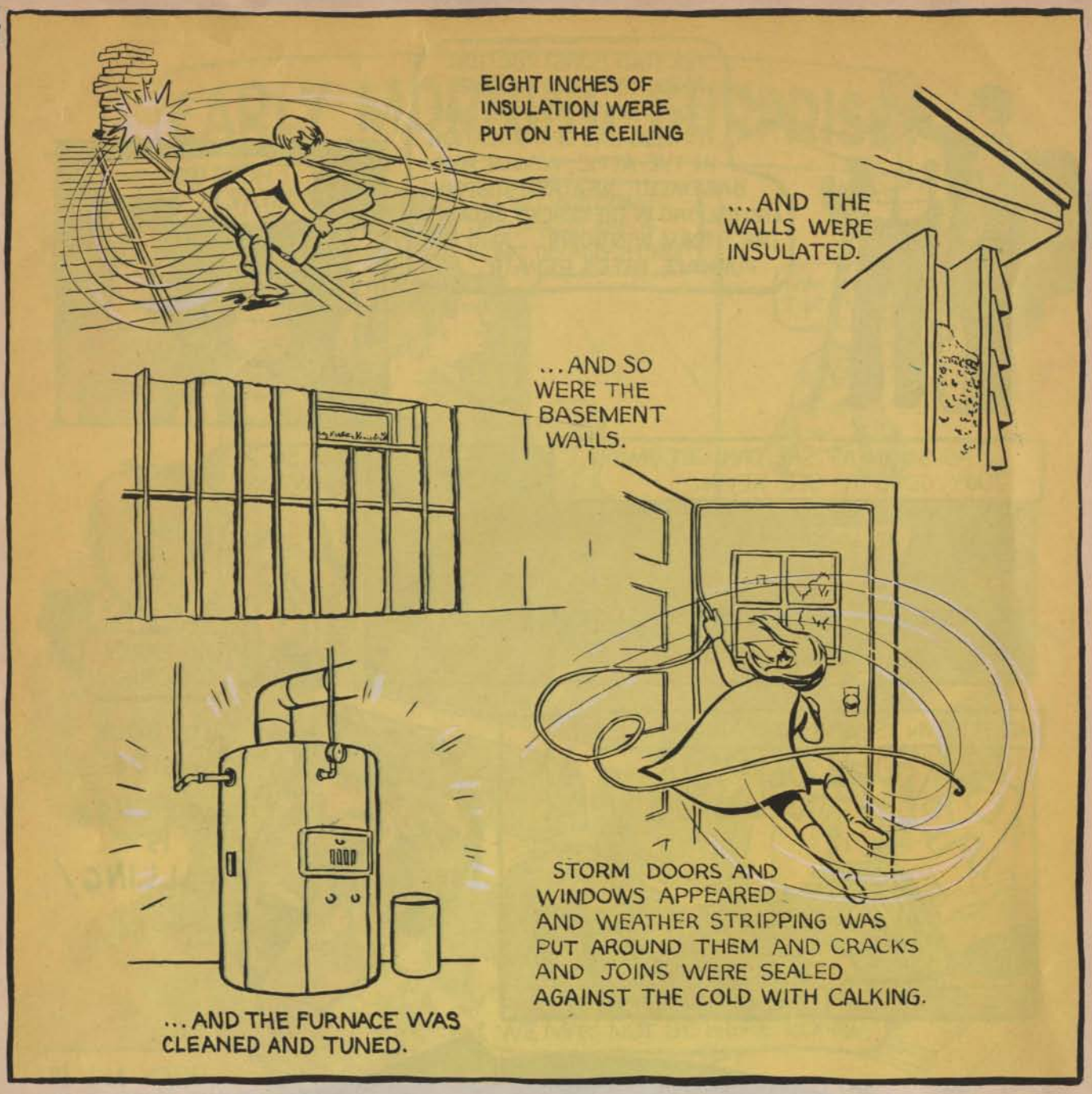
...AS SOON AS SHE CAN GET AWAY JUDY GOES TO SEE KEVIN.
HELLO KEVIN, I'M GLAD YOU'RE HOME!

...SO PSS. PSS PSSS.
OK - EARLY TOMORROW

MR. BROWN IS WAKENED ABRUPTLY.
R-R-R-R-R-I-P

EVERYBODY OUTSIDE THE HOUSE IS FALLING!

AS THEY RUSHED OUT THEY TURNED TO SEE THE PILES OF INSULATION DISAPPEARING UNDER THE ROOF.
IT'S SUPERKIDS!


EIGHT INCHES OF INSULATION WERE PUT ON THE CEILING
...AND THE WALLS WERE INSULATED.
...AND SO WERE THE BASEMENT WALLS.
STORM DOORS AND WINDOWS APPEARED AND WEATHER STRIPPING WAS PUT AROUND THEM AND CRACKS AND JOINS WERE SEALED AGAINST THE COLD WITH CALKING.
...AND THE FURNACE WAS CLEANED AND TUNED.

JUDY'S FATHER WENT TO SEE WHAT WAS HAPPENING!
AND NOW SHE'LL BE AS WARM AS ANY BUILDING AND MY FUEL BILL WILL BE ABOUT HALF! WHAT A GREAT THING FOR THEM TO DO.
SUPERKIDS TO THE RESCUE AGAIN!

THE JOB DONE, JUDY AND KEVIN GET BACK TO THEIR HOMES IN TIME TO BE AWAKENED.
AND NO ONE SEEMS TO KNOW WHERE THEY COME FROM OR WHERE THEY GO...

THINGS TO DO...

... IN SCHOOL

1. THREE OF THE COMMON FUELS USED IN HEATING ARE CALLED "FOSSIL FUELS". FIND OUT WHAT THEY ARE AND WHY THEY ARE CALLED THAT PECULIAR NAME.

2. THERE ARE OTHER SOURCES OF HEAT AND ENERGY TO KEEP HOMES AND BUILDINGS WARM. ONE OF THEM IS THE FUEL THAT MOST OF OUR PIONEER FATHERS USED. ANOTHER IS QUITE MODERN AND HAS TO BE "GENERATED"—AND THERE ARE OTHER SOURCES THAT SCIENTISTS AND ENGINEERS ARE WORKING TO PERFECT. CAN YOU NAME THE FIRST TWO?... TRY TO LIST SOME OF THE OTHER SOURCES.

3. DRAW A PICTURE OF THE PIONEER GETTING THE FUEL HE USED.

4. IS THERE A THERMOMETER OR THERMOSTAT IN YOUR SCHOOL? FIND IT AND TAKE TURNS IN REPORTING THE TEMPERATURE EVERY DAY.

5. MAKE A GRAPH SHOWING THE INDOOR AND OUTDOOR TEMPERATURES EVERY DAY FOR A MONTH

DOCTORS TELL US THAT THE HEALTHIEST INDOOR TEMPERATURE IS **68°** IN COLD WEATHER. IF WE HAVE HIGHER TEMPERATURES, WE WASTE FUEL AND DON'T FEEL AS WELL... AND WHEN WE GO OUTSIDE WE ARE MORE LIKELY TO FEEL COLD... OTHER IMPORTANT ADVANTAGES OF KEEPING INSIDE TEMPERATURES LOWER ARE THAT LESS ENERGY IS USED AND YOUR FAMILY SAVES MONEY.

... AT HOME

MAKE UP A QUIZ FOR YOUR FAMILY TO SEE WHO KNOWS MOST ABOUT FUELS AND TEMPERATURES.

HERE ARE THREE THINGS TO MAKE.

INSULATION... DOES IT WORK?

PUT A GLASS OF ROOM-TEMPERATURE WATER IN A BOX. MAKE A HOLE IN THE TOP FOR A THERMOMETER.

PLACE THE BOX IN THE REFRIGERATOR AND MARK DOWN THE TEMPERATURE DROP EVERY 3 MINUTES UNTIL THE WATER IS 40 DEGREES.

START AGAIN WITH WATER AT ROOM TEMPERATURE BUT THIS TIME INSULATE BY PACKING COTTON BALLS AROUND THE GLASS. RECORD THE TEMPERATURES AT 3 MINUTE INTERVALS.

—DOES INSULATION WORK?

WEATHER-STRIPPING... DOES IT WORK?

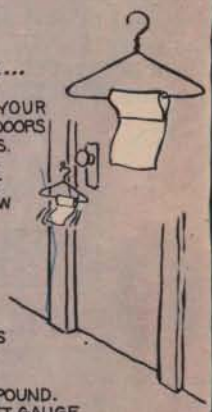
PUT A GLASS OF ROOM-TEMPERATURE WATER IN A BOX THAT HAS SLOTS CUT IN THE SIDES.

PLACE THE BOX IN THE REFRIGERATOR AND MARK DOWN THE TEMPERATURE DROP EVERY 3 MINUTES UNTIL THE WATER IS 40 DEGREES.

START AGAIN WITH WATER AT ROOM TEMPERATURE BUT THIS TIME BLOCK THE SLOTS WITH TAPE. RECORD THE TEMPERATURES AT 3 MINUTE INTERVALS.

- DOES WEATHERSTRIPPING WORK?

BUILD A DRAFT GAUGE... WITH WHICH TO CHECK AROUND YOUR WINDOWS AND DOORS FOR COLD DRAFTS.



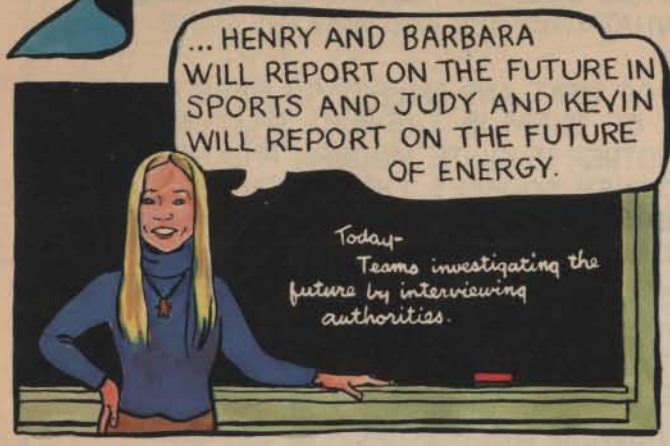
PLACE IT AGAINST DOOR AND WINDOW FRAMES. THE SHEET ACTS AS A "SAIL" AND MOVES WITH AIR CURRENTS.

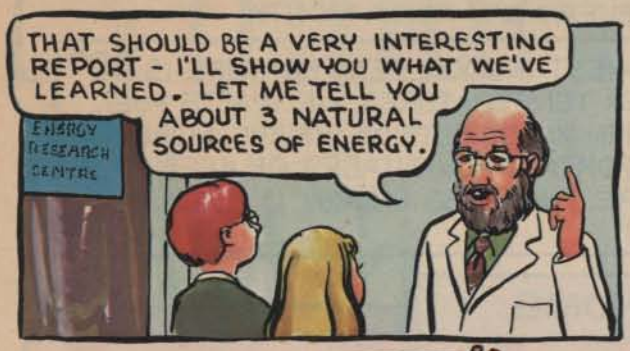
SEAL THE CRACKS WITH WEATHER-STRIPPING OR CAULKING COMPOUND. USE YOUR DRAFT GAUGE REGULARLY TO SEE IF ADJUSTMENTS ARE NEEDED.

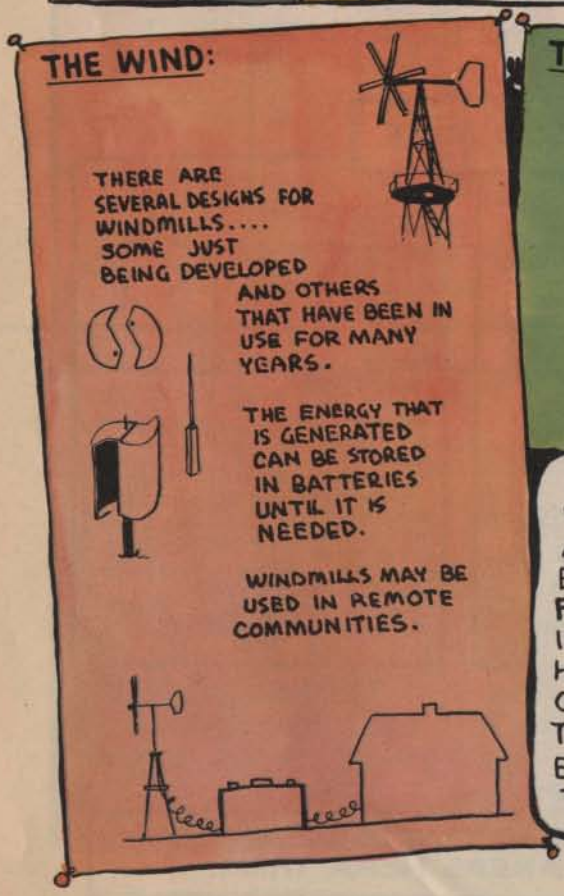
- ASK PERMISSION TO CHECK THE INSULATION IN THE ATTIC—IF IT IS 8" DEEP AND COVERS COMPLETELY IT WILL SAVE YOUR FAMILY MONEY AND WILL CONSERVE ENERGY.
- LOWER YOUR THERMOSTAT A FEW DEGREES AND KEEP A RECORD TO SEE IF YOU ARE ABLE TO SAVE HEATING ENERGY.

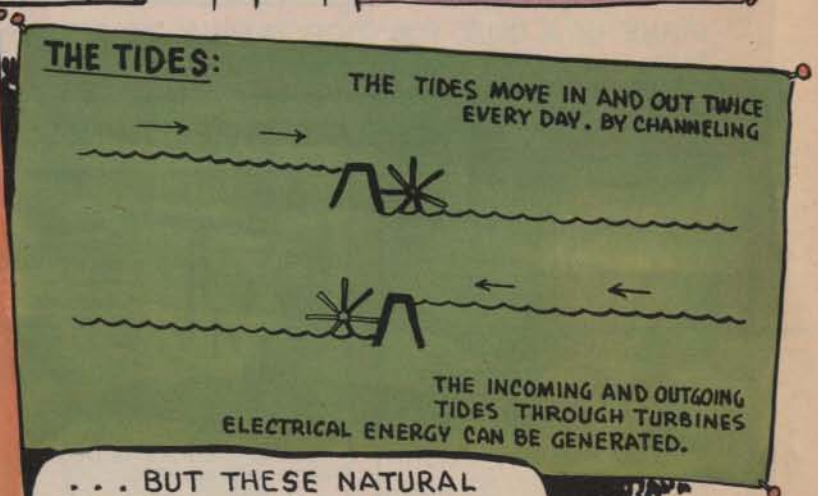
DOUBLE OR "STORM" WINDOWS CONSERVE A GREAT DEAL OF HEAT AND PREVENT UNCOMFORTABLE COLD AREAS NEAR THEM.

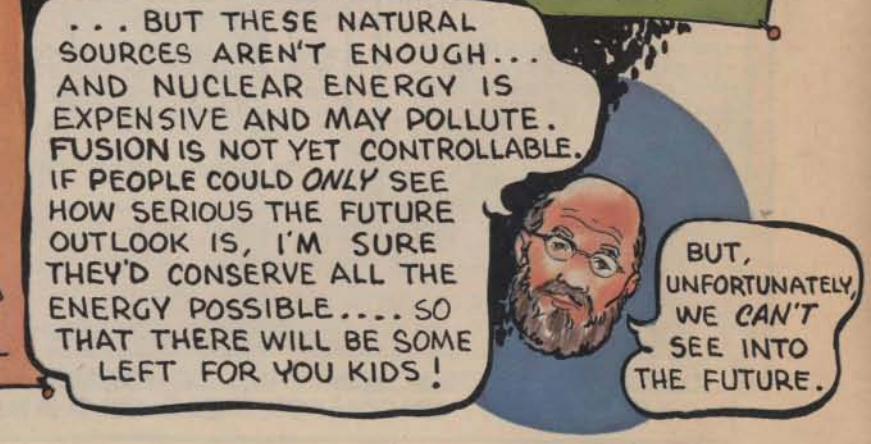
JOURNEY INTO TOMORROW











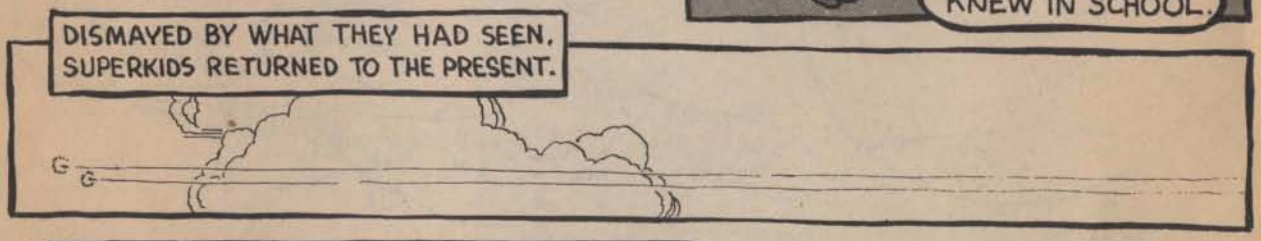
-ONCE OUTSIDE
MAYBE WE CAN VISIT THE FUTURE WITH THE HELP OF ENERGOS
HOW KEVIN?
WELL IT'S TUESDAY HERE TODAY, BUT IN EUROPE IT'S ALREADY WEDNESDAY—SO IF SUPERKIDS GO EAST AT ENERGOS TOP SPEED MAYBE WE CAN GET TO THURSDAY ...AND NEXT WEEK... AND NEXT MONTH... AND NEXT YEAR MAYBE.
IT SOUNDS DANGEROUS ...BUT LET'S TRY IT.
... AND SO JUST AFTER LUNCH THEY QUIETLY SLIPPED BACK INTO SCHOOL AND TO THEIR LOCKERS TO GET ENERGOS AND START THEIR JOURNEY INTO TOMORROW. AS THEY GAINED SPEED SUNRISES AND SUNSETS ZIPPED BY UNDER THEM UNTIL THEY WERE JOINED TOGETHER IN A BLUE LIGHT.
LETS CUT OUR SPEED TO SEE WHERE WE ARE.
WE FAILED! —THERE'S OUR OWN STREET AND SCHOOL BUT IT LOOKS FUNNY.
WE DIDN'T FAIL!! THAT'S OUR TOWN BUT IT'S IN THE FUTURE-LET'S FIND A CALENDAR TO SEE WHAT DATE IT IS.
SO THEY CACHED THEIR SUPERKIDS SUITS IN A SAFE PLACE AND FOUND A CALENDAR.
1996
GEE. WERE 20 YEARS INTO THE FUTURE.
THERE ARE HARDLY ANY CARS...AND NO LIGHTS IN THE STORES.
AND LOOK AT...

THEY SAW COLD DARK BUILDINGS AND PEOPLE OUT OF WORK, HUNGRY AND POORLY CLOTHED

THERE WERE FEW CARS AND VERY LITTLE PUBLIC TRANSPORT

FOOD PRICES WERE HIGH, THERE WERE NO MOVIES AND ENERGY WAS RATIONED

THE AIR WAS POLLUTED AND THE STREETS WERE DIRTY



THINGS TO DO...

IN SCHOOL

① NAME TWO INVENTIONS OF MAN WHICH USE THE WIND FOR MAKING ELECTRICAL ENERGY OR DOING WORK:

1 _____ 2 _____

② NAME TWO WAYS THAT WE USE MOVING WATER TO MAKE ENERGY OR TO DO WORK:

1 _____ 2 _____

③ IN WHAT WAY DO SPACE SCIENTISTS USE THE SUN TO MAKE ELECTRICITY:

THE SUN IS THE SOURCE OF ALL ENERGY (EXCEPT NUCLEAR AND GEOTHERMAL) THE WARMTH FROM THE SUN MAKES PLANTS GROW·· IT EVAPORATES WATER FROM THE OCEANS SO IT CAN FALL AS RAIN OR SNOW TO FEED RIVERS AND WATER PLANTS·· IT KEEPS WATER FROM FREEZING SOLID SO RIVERS CAN FLOW AND TIDES CAN MOVE·· IT HEATS AIR IN ONE PLACE SO IT RISES AND THE COOLER AIR MOVING IN TO TAKE ITS PLACE IS CALLED WIND·· OIL, NATURAL GAS AND COAL WERE ORIGINALLY PLANTS THAT GREW IN SUNSHINE, BUT WERE BURIED AND BECAME CHANGED UNDER THE EARTH'S PRESSURE. PEOPLE GET VITAMINS FROM THE SUN AND THEY GIVE US MORE ENERGY.

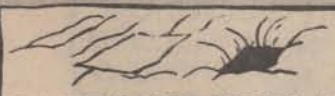
WRITE A REPORT ON WHAT WE CAN DO TO MAKE GOOD USE OF THE ENERGY THAT COMES FROM THE SUN.

AT HOME

TO MAKE A MODEL OF A DEVICE WHICH CAN GENERATE ENERGY FROM THE WIND:

STAPLE OR TACK 4 PLASTIC CUPS TO 2 SMALL BOARDS AS SHOWN. NAIL THE BOARDS IN A CROSS AND DRILL A HOLE THROUGH THE CENTRE OF BOTH. PLACE THE CROSSED BOARDS OVER A POST WITH A LARGE NAIL IN IT'S END. WHEN THE WIND BLOWS, IT SPINS.

MAKE AN EGG SHELL GARDEN (SEE PAGE 17). TREAT IT AS YOU DO THE OTHER MINIATURE GARDEN EXCEPT KEEP IT IN A FAIRLY DARK PLACE. YOU'LL SEE THAT GROWING THINGS NEED SUNLIGHT.



PLACE TWO PIECES OF CLOTH, ONE DARK AND ONE LIGHT, ON THE SNOW ON A SUNNY DAY. THE DARK CLOTH WILL ABSORB ENERGY FROM THE SUN AND MELT THE SNOW.

CUT A CIRCLE OF THICK CARDBOARD AND PUT SOME SLITS IN ITS EDGE, THEN PUNCH A NAIL THROUGH ITS CENTRE; INTO THE SLITS AT ITS EDGE PUSH PIECES OF THIN CARDBOARD. THEY SHOULD BE ABOUT ONE INCH SQUARE. TAKE A PIECE OF STRING OR WIRE WITH A LOOP AT EACH END AND SUSPEND THE WATER WHEEL UNDER A TAP. THE CARDBOARD WILL SOON BECOME SOGGY, BUT BEFORE IT DOES, YOU'LL SEE HOW WATER DOES WORK.

EPILOGUE

DID YOU NOTICE WHEN WE WERE ON OUR WAY BACK FROM THE FUTURE THAT WE DIDN'T SEEM TO HAVE THE POWER THAT WE USUALLY HAVE?
THAT TRIP TOOK A LOT MORE ENERGY THAN ANY OF THE OTHERS - I GUESS ENERGOS IS LIKE ANY OTHER SOURCE OF ENERGY - MAYBE IT CAN RUN DOWN, TOO
WE'VE LEARNED A LOT FROM BEING SUPERKIDS - THE MOST IMPORTANT THING IS THAT THE ONLY WAY TO USE ANY ENERGY IS TO CONSERVE ALL OF IT THAT WE CAN.

IT WAS RIGHT HERE THAT WE FOUND ENERGOS. LET'S TAKE A CLOSE LOOK AND SEE IF WE CAN SEE ANY CHANGE.

LOOK! IT'S DISAPPEARING!

IT'S GONE!

OH WOW! THAT'S TOO BAD - I LIKED BEING A SUPERKID. I GUESS WE'LL HAVE TO DO ALL WE CAN AS ORDINARY KIDS TO HELP PEOPLE ... AND ESPECIALLY TO CONSERVE ENERGY.
I WISH WE COULD TELL EVERYONE THAT WE WERE SUPERKIDS.

... BUT WHO'D BELIEVE IT?
WELL HENRY WOULDN'T THAT'S FOR SURE!

THINGS TO DO....

EVERY SOURCE OF ENERGY IS MEASURED IN SOME UNIT OF MEASUREMENT. CAN YOU FILL IN THE SPACES? THE FIRST ONE IS DONE FOR YOU.

GASOLINE *gallons*	ELECTRICITY	FOOD		
COAL	WOOD	OIL	NATURAL GAS	

PRETEND YOU HAVE A **CRYSTAL BALL** AND CAN SEE INTO THE FUTURE. WRITE A REPORT ON WHAT ENERGY YOU'LL BE USING AND HOW IT WILL AFFECT YOUR LIFE-STYLE WHEN YOU ARE 25.

HIDDEN ENERGY SAVER

JOIN THE DOTS. START HERE

THE MORE YOU USE THIS VEHICLE'S MOTOR THE STRONGER IT GETS... IT CAN GO 1500 MILES ON THE SAME AMOUNT OF ENERGY THERE IS IN A GALLON OF GASOLINE.

MAKE AN **ENERGY DIARY**

THINK OF AN ENTIRE DAY FROM THE TIME YOU GET UP UNTIL YOU GO TO BED. MAKE A LIST OF EVERYTHING YOU DO THAT USES A SOURCE OF ENERGY. PUT A ✓ BESIDE THE ITEMS THAT COULD BE REPLACED WITH **PEOPLE ENERGY.**

CAN YOU FIGURE OUT WHY IT COSTS LESS AND **USES LESS ENERGY** FOR YOUR FATHER TO SHAVE WITH AN ELECTRIC RAZOR THAN WITH LATHER AND RAZOR BLADES?

THINGS TO DO...

FORM A SUPERKIDS COMMITTEE TO SAVE ENERGY AND ORGANIZE A "SAVE OUR ENERGY" MONTH AT YOUR SCHOOL

DURING S.O.E. MONTH:

4. ELECT A "PUBLIC RELATIONS" REPORTER WHO WILL TELEPHONE OR WRITE TO YOUR NEWSPAPER AND YOUR RADIO AND TELEVISION STATIONS TO TELL THEM ABOUT YOUR SPECIAL S.O.E. MONTH. INVITE THEM TO SEND A REPORTER TO INTERVIEW THE STUDENTS.

ENERGY SCORE CARD

		AUTOMOBILE MILEAGE (SEE PAGE 11)	AUTOMOBILE GALLONS OF GASOLINE (SEE PAGE 11)	COOKING & LIGHTING KILOWATT HOURS (SEE PAGE 7)	HOME HEATING WITH NATURAL GAS, COAL, OIL OR ELECTRICITY.
FIRST WEEK	FOR THIS FIRST WEEK MEASURE NORMAL ENERGY USE WITHOUT TRYING TO SAVE.				
SECOND WEEK	FOR THIS WEEK TRY TO SEE HOW MUCH ENERGY CAN BE SAVED.				
THIRD WEEK	CHECK AGAIN TO BE SURE THAT EVERYONE IS TRYING				
FOURTH WEEK	KEEP AN EYE ON THINGS-ARE YOU LOWER THAN LAST WEEK?				
FIFTH WEEK	THIS IS THE LAST WEEK OF YOUR TEST- IS EVERYBODY HELPING?				
	TOTALS USED IN 4 TEST WEEKS				
	TOTALS SAVED IN 4 TEST WEEKS				

NORMAL WEEK

FOUR TEST WEEKS

MULTIPLY THE AMOUNTS USED IN THE NORMAL WEEK BY 4. SUBTRACT THE TOTALS OF THE 4 TEST WEEKS TO SEE HOW MUCH YOU'VE SAVED.